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| Notice of Allowability | Application No. | Applicant(s) |
|-------------------------------|-------------------------------|------------------------|
| | 10/709,084 | MELVIN, STEPHEN WALLER |
| | Examiner Tammara R. Peyton | Art Unit 2182 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to 7/17/07.
2. The allowed claim(s) is/are 1-32.
3. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some* c) None of the:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____.
 - (b) including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application
6. Interview Summary (PTO-413),
Paper No./Mail Date _____
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____.

TAMMARA PEYTON
PRIMARY EXAMINER

DETAILED ACTION

Response to Restriction Arguments

Based on fewer consideration Examiner agrees with Applicant regarding Species I, claims 1-18 directed to an allowable product because claims 1-18 depend upon allowed claim 32. Pursuant to the procedures set forth in MPEP § 821.04(B), claims 1-18, directed to the process of making or using an allowable product, previously withdrawn from consideration as a result of a restriction requirement, are hereby rejoined and fully examined for patentability under 37 CFR 1.104. See *In re Ziegler*, 443 F.2d 1211, 1215, 170 USPQ 129, 131-32 (CCPA 1971). See also MPEP § 804.01.

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

Pursuant to MPEP 606.01, the title has been changed to read:

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-- APPARATUS FOR INPUT/OUTPUT EXPANSION WITHOUT ADDITIONAL
CONTROL LINE WHEREIN FIRST AND SECOND SIGNALS TRANSITION DIRECTLY
TO A DIFFERENT STATE WHEN NECESSARY TO PERFORM INPUT/OUTPUT-

The following is an examiner's statement of reasons for allowance based on the newly sited Prior Art:

Racine et al. (US 7,194,695) and Tangen (US 6,874,050)- teaches transiting between first and second state when performing I/O.

However, claims 1-32 include allowable subject matter and considered pertinent to the applicant's disclosure, taken individually or in combination, the prior art of record and the newly sited prior art above does not teach or suggest the claimed limitations having "an expansion circuit for an embedded system comprising a host controller and a peripheral device, said expansion circuit comprising" a logic circuit coupled to first and second signals, said first and second signals coupled to said host controller and to said peripheral device, said logic circuit generating an internal signal in response to the condition wherein said first and second signals transition directly between a first state and a second state; wherein said host controller is configured such that said first and second signals transition to a third state after said first state and before said second state the state of said first and second signals are changed as necessary to perform input from the or output to said peripheral device; and wherein said host controller is configured such that said first and second signals transition directly between said first

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state and said second state when the state of said first and second signals are changed as necessary to perform input from or output to said expansion circuit to generate said internal signal."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tammara Peyton whose telephone number is (571) 272-4157. The examiner can normally be reached between 6:30 - 4:00 from Monday to Thursday, (I am off every first Friday), and 6:30-3:00 every second Friday. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571) 272-4083. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Any inquiry of a general nature of relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2100.

Mailed responses to this action should be sent to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231.

Faxes for Official/formal (After Final) communications or for informal or draft communications (please label "PROPOSED" or "DRAFT") sent to:

(571) 273-8300

Hand-delivered responses should be brought to:

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USTPO, Randolph Building, Customer Service Window

401 Dulany Street

Alexandria, VA 22314.

TAMMARA PEYTON
PRIMARY EXAMINER



Tammara Peyton

September 20, 2007